

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

William A. Harris

Examiner: Cassandra Cox

Serial No.:

09/751,610

Group Art Unit: 2816

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Docket: H16-26054

DECISION DUASE CENEDATOR

(256.058US1)

Title:

PRECISION PHASE GENERATOR

**AMENDMENT & RESPONSE UNDER 37 C.F.R. § 1.116** 

Box AF Commissioner for Patents Washington, D.C. 20231

In response to the final Office Action mailed June 4, 2002, Applicant proposes amendment to the claims as follows:

**IN THE CLAIMS** 

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect cancellation of claim 13 and amendment of previously pending claims 4, 11 and 14-17. The specific amendments proposed to individual claims are detailed in the following marked up set of claims.

1. A circuit for dividing an input clock signal into N clock signals having a relative phase separation of 360°/2N, where N is a positive integer, the circuit comprising:

a phase lock loop circuit receiving an input signal having a frequency  $F_0$  and providing an output signal having a frequency  $2NF_0$ ; and

a Johnson counter having N stages connected to receive as an input the output signal of the phase lock loop circuit and providing an output signal as an error signal to the phase lock loop circuit; said Johnson counter also connected for providing at least two output signals from at least two of the N stages of the Johnson counter as clock signals each having a phase displaced from the phase of the other 360/2N°.

2. The circuit of claim 1 wherein N = 4.

Mindler Miller 8/9/02